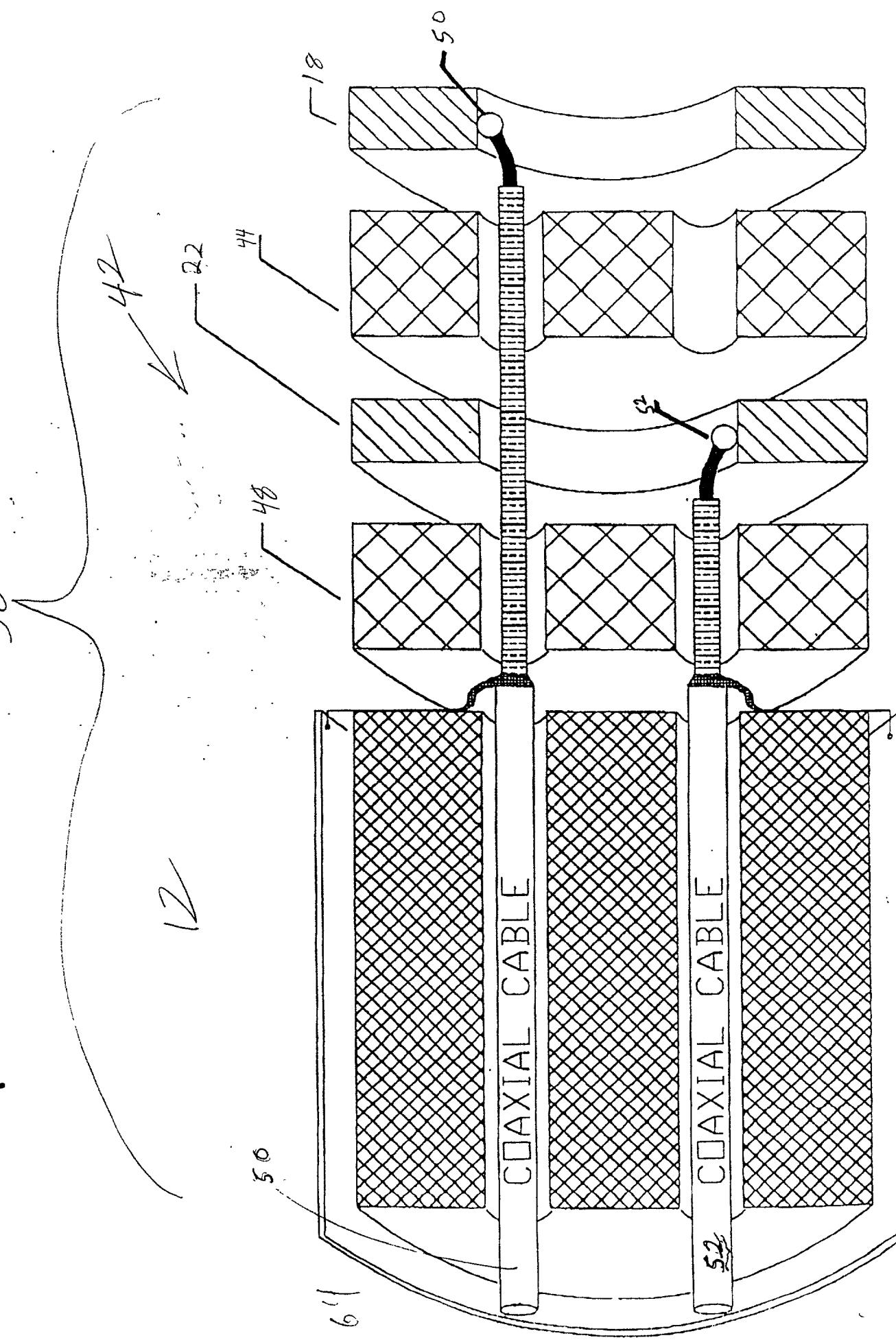
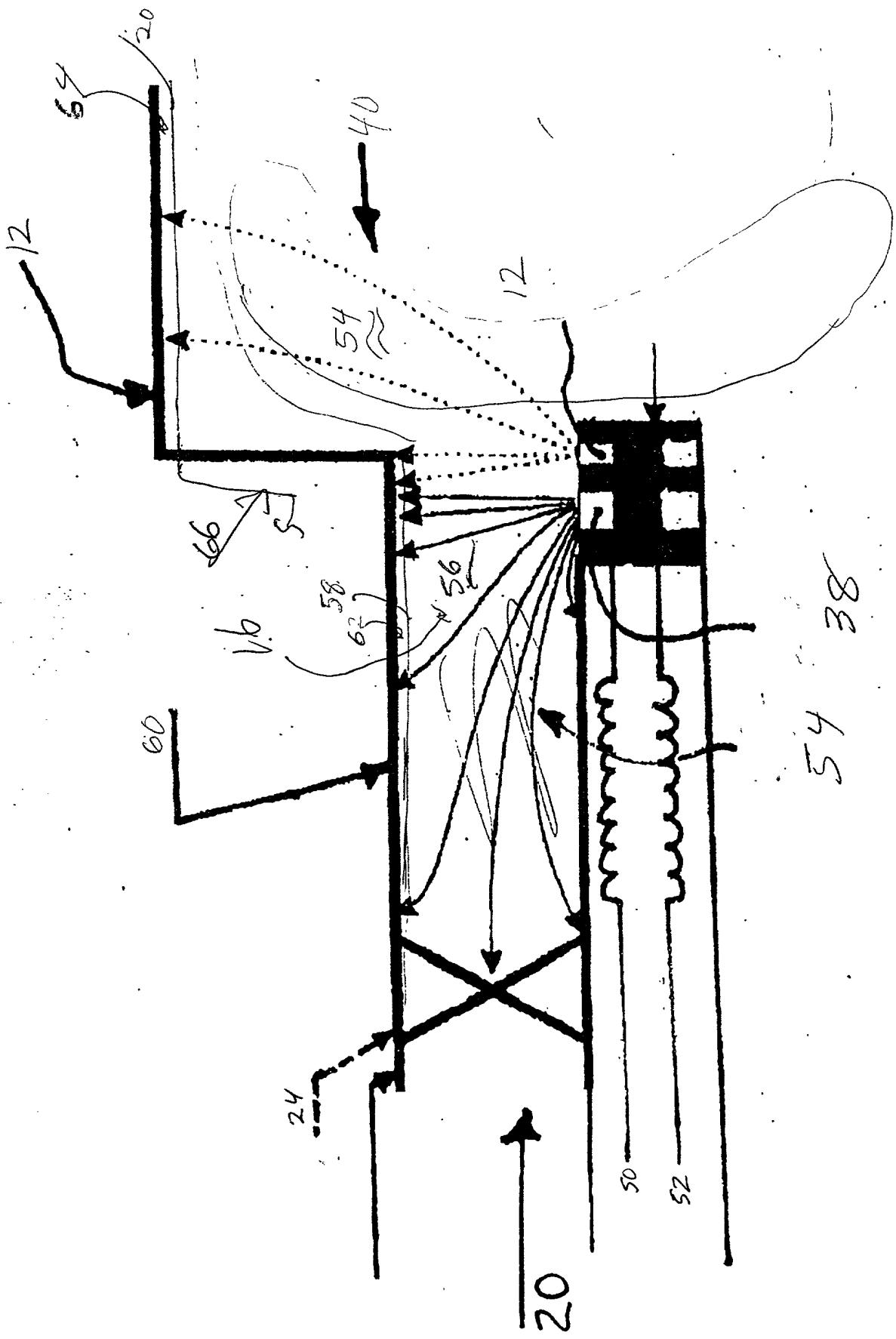


Fig 1

Figure 2





## FIGURE 3

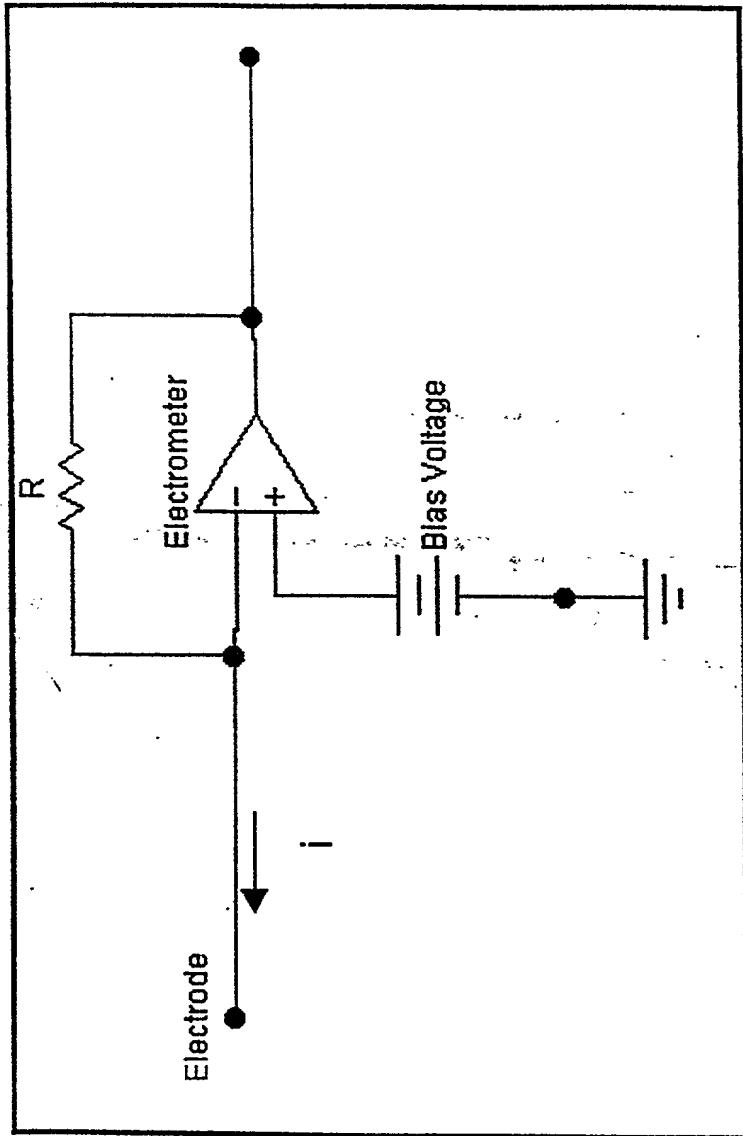
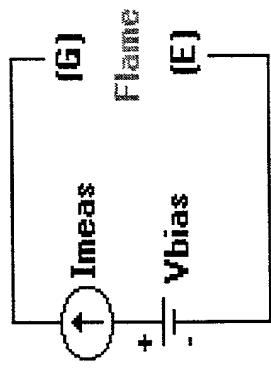


Figure 4: Typical control circuit for flashback detection sensor.

Fig. 4

Figure 4b. Typical current measuring device.



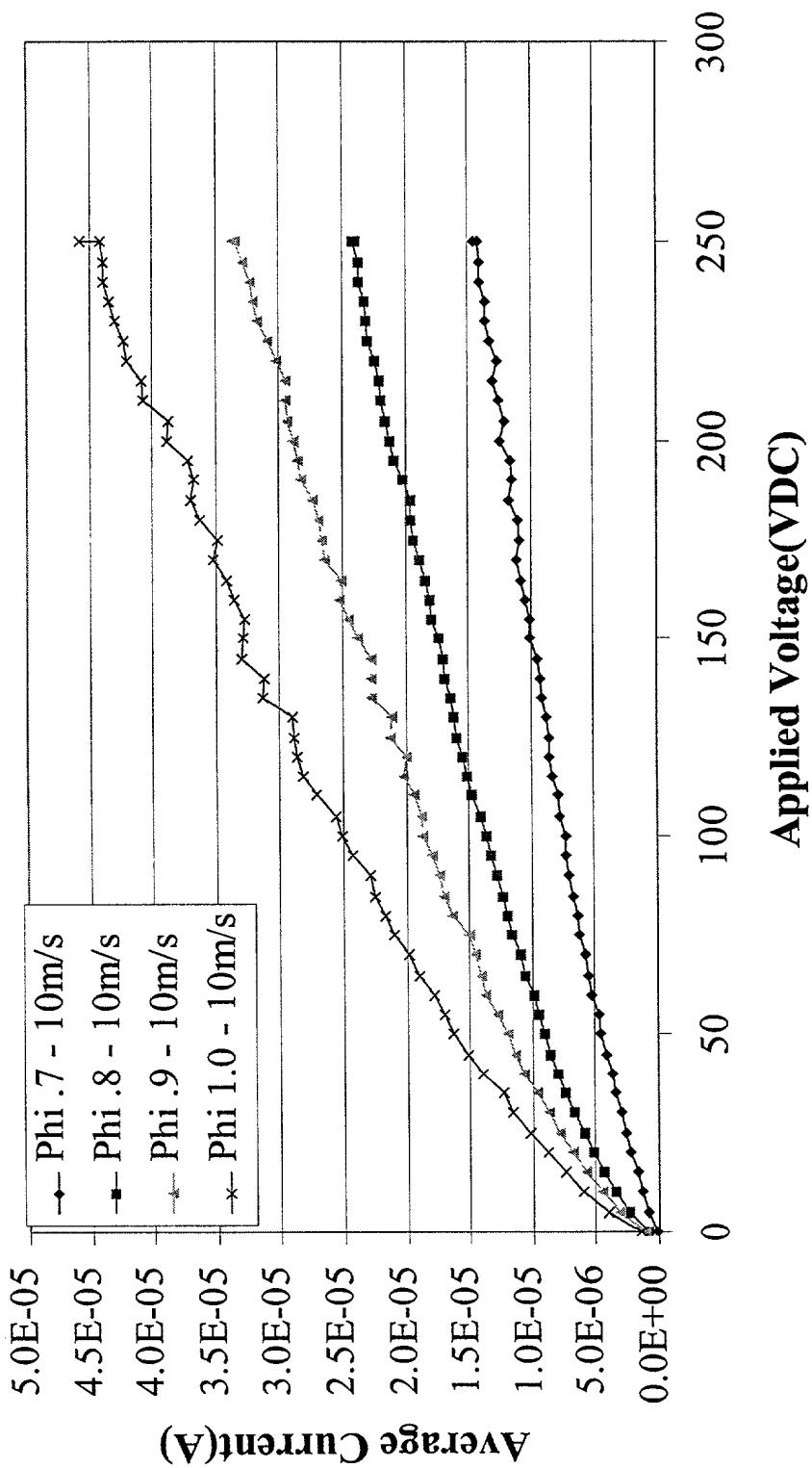
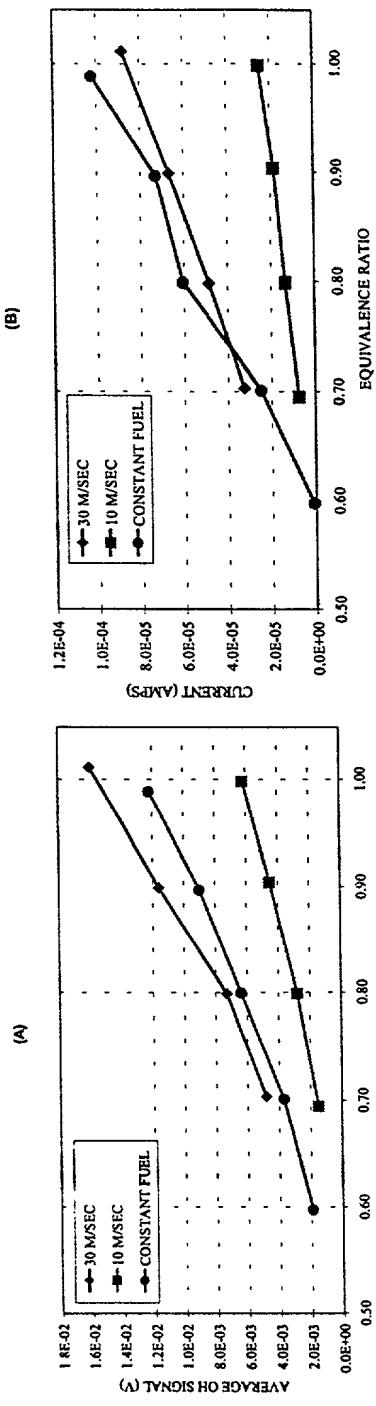
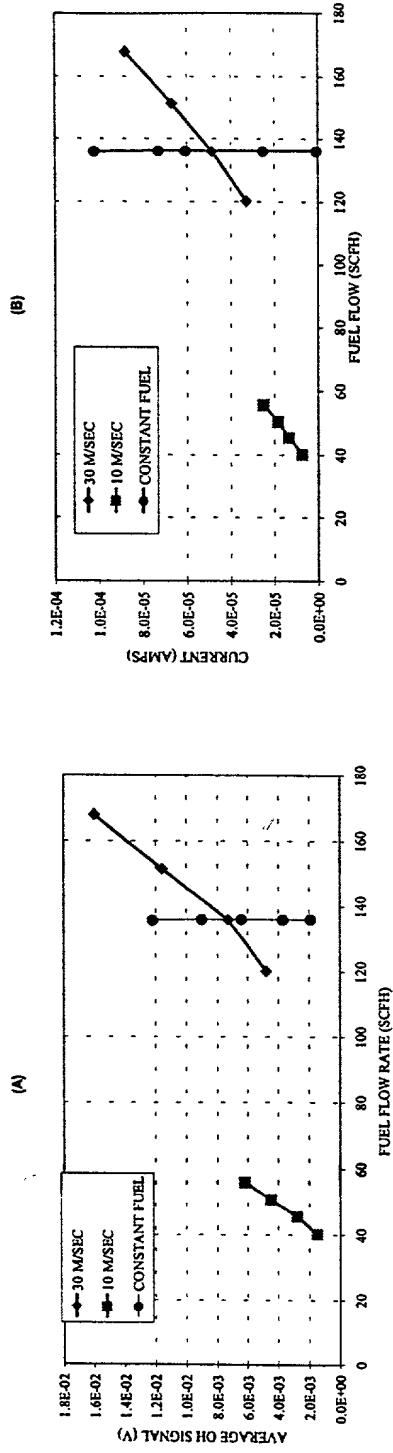


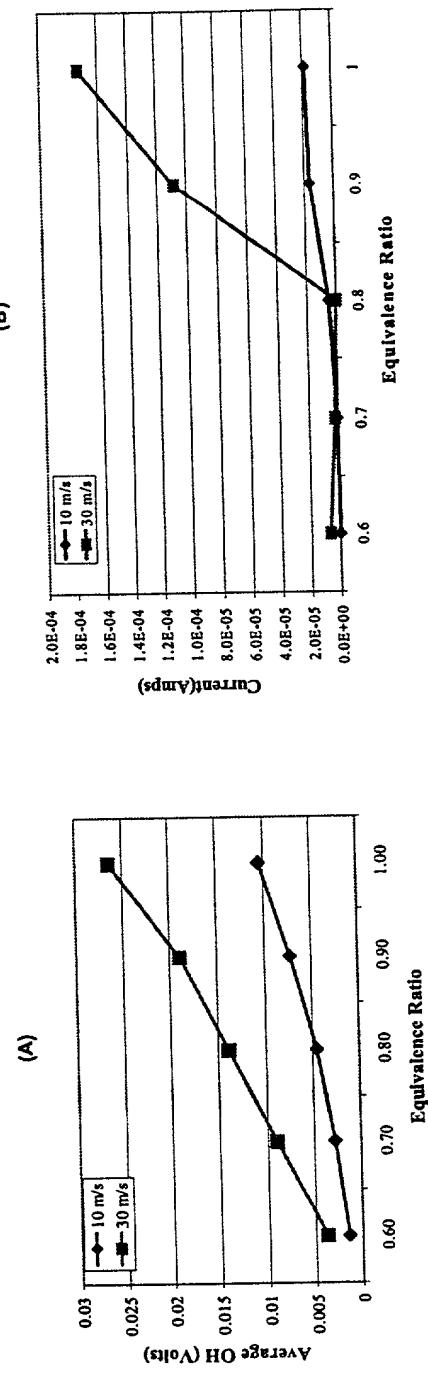
Figure 5 Shows the average current measurements over a range of applied voltage ( $V_{bias}$ ) and equivalence ratios, at 10m/s bulk velocity using the isolated electrode combustion configuration.



**Figure 6.** Data from the isolated electrode configuration: (A), and the average OH measurements at a range of equivalence ratios, (B) The average current with Vbias of 100 VDC at a range of equivalence ratios.



**Figure 7.** Data from the isolated electrode configuration: (A), and the average OH measurements at a range of fuel flow rates, (B) The average current with Vbias of 100 VDC at a range of fuel flow rates.



**Figure 8.** Data from the metal combustor configuration: (A), the average OH measurements at a range of equivalence ratios, (B) the average current measurements at a range of equivalence ratios.